

## **REMARKS**

In response to the Office Action dated 10 July 2007, please amend the application as set out. Reconsideration and reevaluation, as amended, is respectfully requested.

5 The Examiner noted that the present Application claims subject-matter disclosed in prior International Patent Application No. PCT/GB03/01426, which itself claims priority from GB0207563.8. The Examiner required that a reference to the prior Application be inserted in the first sentence of the Specification of the present Application, pursuant to 37 CFR 1.76. Reference to the priority claim was made in the Preliminary Amendment previously submitted, and reference to the priority Applications were made in the Declaration previously submitted  
10 (and which were acknowledged in the Filing Receipt issued by the Office). The Applicant has amended the Specification to include the required references and therefore submits that this objection should now be withdrawn.

The Examiner also objected to the drawings under CFR 1.121(d) on the basis that the cross-section view indicators A-A' should be Roman or Arabic numbers. The Applicant has  
15 amended the drawings to include the cross-section indicators X-X, and has made corresponding amendments to the Description. Following these amendments, the Applicant submits that this objection should be withdrawn.

The Examiner went on to reject claims 1, 3-5 and 7-11 under 35 USC 102(b) as being anticipated by Davis et al (US6,276,452), and claims 2, 6 and 12 under USC 103(a) as being  
20 unpatentable over Davis et al in view of Bjornstad (US5,682,950).

The Applicant has amended independent apparatus claim 1 to specify that adjacent projections define channels therebetween which are shaped to direct junk into the respective inlet ports. The Applicant respectfully submits that the invention defined by new claim 1 is novel

and inventive over the disclosures of the references cited by the Examiner, taken singly or in combination.

In more detail, the present invention, as defined by new claim 1, relates to a downhole tool for collecting junk from a wellbore. The tool includes a multi-faceted surface comprising a plurality of projections for contacting and breaking up junk, and inlet ports through which the broken up junk passes into a trap of the tool, for collection. Each projection is located between adjacent inlet ports, and adjacent projections define channels which are shaped to direct the junk into the respective inlet ports.

In this fashion, as the tool travels along a wellbore, the projections of the multi-faceted surface act to break-up junk that is encountered, which broken up junk is then directed towards and into the inlet ports by the channels defined between the adjacent projections. Accordingly, the broken up junk is efficiently channeled into and through the inlet ports, for collection in the trap of the tool.

The apparatus of Davis et al is for separating small cutting debris from fluid flow at a bottom hole assembly during operation of an incorporated mill tool. In contrast to the present invention, defined by new claim 1, the apparatus of Davis et al does not include channels between the milling blades 23 which are shaped to direct fluid into the intake slots 26. Indeed, it is apparent from a reading of Davis et al that, in use, fluid flows past the milling blades 23 into a region adjacent the intake slots 26, from where it is drawn up through the slots into a deflector tube 28. This is achieved by jetting fluid through upper ejections ports 24, creating an area of low pressure that draws fluid through the intake slots 26 (see column 5, lines 38 to 42). Accordingly, it is clear that there is no channel for directing the junk into the slots 26 in the fashion of the claimed invention. The Applicant therefore reiterates his belief that the invention defined by new claim 1 is novel over Davis et al.

Furthermore, it is apparent from a reading of Davis et al that the apparatus is a reverse-circulation type apparatus, in which fluid flowing down through a drive sub 10 is directed through eductor nozzles 34 and to an exterior of the tool, through ejection ports 24. The fluid then flows down along the tool exterior past the blades 23 to the intake slots 26, where it is drawn up through the tool, as described above. The Davis et al apparatus will suffer from significant disadvantages when compared to the claimed invention. In particular, the Davis et al apparatus is designed and intended for capturing debris such as during a casing or liner -milling procedure, where small metal cuttings (swarf and chips) are generated as the casing/liner is abraded. Were the Davis et al tool used for clearing junk from a wellbore in the fashion of the present invention (where junk including such swarf and chips but additionally potentially including relatively large debris adhered to the walls of a casing/liner being cleaned), it is likely that any relatively large junk loosely adhered to the casing/liner wall and dislodged by the blades 23 would not be drawn up into the tool through the slots 26, but would rather fall down the wellbore, and thus would not be collected.

In contrast, the present invention, in providing projections which break-up junk, and channels between adjacent projections which specifically direct the junk towards the inlet ports, ensures that the junk is collected and thus that the junk can then be retrieved from the wellbore. Accordingly, the Applicant reiterates his belief that the invention defined by new claim 1 is inventive over the disclosure of Davis et al, and therefore submits that the rejection of claim 1 should be withdrawn.

Furthermore, the Applicant respectfully submits that a skilled person, seeking to modify the Davis et al apparatus would not and could not modify the apparatus to result in the invention of claim 1. Specifically, as discussed above, the Davis et al apparatus operates in a reverse circulation fashion, where fluid passes down the exterior of the apparatus, past the mill blades

23. This is the case even though the mill blades 23 are clearly intended to mill an item located downhole (to the right in the Figures) of the mill. It is therefore clear that the portion of the Davis et al apparatus located downhole of the mill blades 23 must be sized to pass within an item to be milled. Furthermore, it is clear that there must be a relatively large annular clearance around the portion of the apparatus in which the slots 26 are located, to enable sufficient suction on the fluid to draw the cuttings into the tool, and also to provide a space for the cuttings to reside before being drawn into the tool. It is therefore clear that it would not be possible to form channels in the Davis et al tool for directing the junk towards the intake slots 26 in the fashion of the present invention and for the Davis apparatus to function as intended. Accordingly, even if there were impetus for the skilled person to do so, any modification to this effect would be specifically against the teachings of the reference and would result in the apparatus ceasing to function as intended.

A similar amendment to that discussed above in relation to independent apparatus claim 1 has been made to the corresponding independent method claim 10. Accordingly, and for the same reasons, the Applicant respectfully submits that the invention defined by new claim 10 is both novel and inventive over the disclosures of the cited references, and therefore submits that the rejection of claim 10 should be withdrawn. Support for the amendments to claims 1 and 10 can be found at page 8, lines 25 through 40 of the Specification as well as Figure 1.

Claims 3-5 and 7-11 are ultimately dependent upon either claim 1 or 10, therefore the Applicant submits that these claims are dependent upon acceptable base claims, and that the rejections of these claims should be withdrawn.

Turning now to the rejections of claims 2, 6 and 12, once again, as these claims are ultimately dependent upon either claim 1 or 10, the Applicant submits that these claims are

dependent upon acceptable base claims, and that the rejections of these claims should be withdrawn.

The Applicant respectfully submits that the present Application is in now order for allowance, and request favourable reconsideration thereof.

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Respectfully submitted,

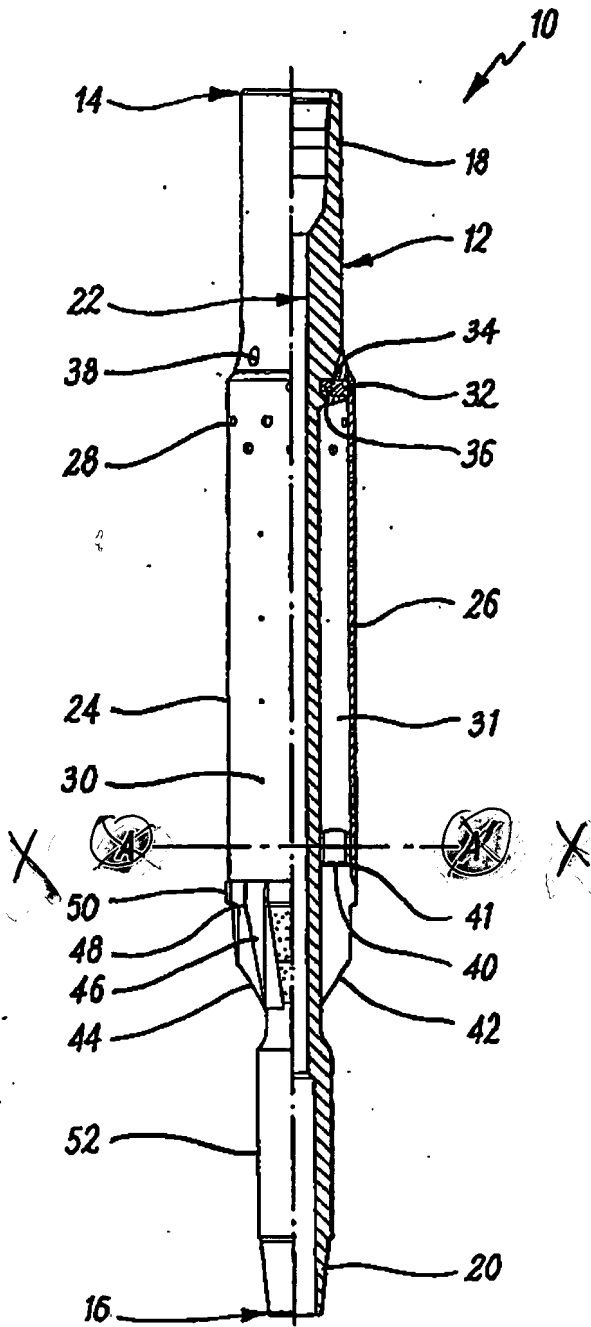
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C. Dean Domingue  
C. Dean Domingue, Reg. No. 33,682  
Perret Doise, APLC  
Post Office Box 3408  
Lafayette, Louisiana 70502-3408  
Phone 337.262.9000  
Fax 337.262.9001  
**Customer No. 29166**

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**Fig. 1**